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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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CORRESPONDENCE

For the American Bee Journal.

#### Top vs. Side Storing.

GREINER BROS.

We were highly entertained by the able discussions on the above subject by Messrs. Heddon and Doolittle. As they take the opposite sides of the question it gives an opportunity to profit by the argument; we have also experimented on the same question for the last 3 or 4 years, and can add a few more thoughts from our own observation.

When we commenced bee-keeping, we adopted Mr. Heddon's plan; tiering up, exclusively, for the production of surplus honey. Our surplus cases, or half-stories, are arranged to tier up, the top and bottom being alike accessible for bees, admitting the adjustment of any number, and are therefore virtually the same as Mr. Heddon's surplus arrangement.

In the year of 1877 we transferred 8 colonies, and supplied 3 or 4 of these with sets of 9 four-pound glass boxes; we had, at that time, not adopted the 2-pound sections entirely, but experimented with different styles. A week later we found these glass boxes about  $\frac{1}{2}$  finished; we raised them and adjusted one of our surplus boxes. In another week the latter was as near filled as the glass boxes were the week previous, but the boxes were not yet finished. Of course another surplus case took the place of the first one; and this, with the 9 boxes, went up another story. By that time our hives had much the appearance of house chimneys, and we began to wish that our bees would finish some of the top work. The next week we were puzzled; the last adjusted case was ready to be raised up again; the first one nearly, and the boxes almost finished, but none ready to be removed. In our

excitement we added another case, and had then a capacity of about 140 lbs. of surplus honey on those hives. When the season closed, nearly all this honey was finished, and we harvested from these colonies about 1,000 lbs. of comb honey, by the tiering-up plan. This we considered a success, and if Mr. Heddon can succeed in producing such amounts as he stated in the last number of April, he may well be satisfied with his plan.

The next year we began to practice artificial swarming, or, rather, divided the colonies, to prevent natural swarming; we had not yet tried queen-rearing, but used capped cells for the queenless halves. We noticed that these divided queenless colonies, while their queens were hatching and being fertilized, would store most invariably an abundance of honey in the brood-chamber, and we wished, time and again, that we had this overplus honey in sections. Our hives were arranged in such a way that six 5x5 $\frac{1}{2}$  sections just fill the brood-frame (originally calculated for feeding purposes), and we conceived the idea that frames, the same width of, and filled with our sections full of comb, substituted for some of the brood-frames, might possibly help us out of the dilemma. The plan worked in many cases to a charm, and the starting point of our side-storing plan was established.

Mr. Heddon says: "To move sections from the side to the top is too much work." This we found to be true; the operation looks easier on paper than we find it to be in reality, and for this reason we have not yet practiced it very thoroughly; but what harm is there in placing, according to the size of the hive, one or more side-storing frames in the same, to be taken out again when the honey season is over? It gives the bees a chance to work at the side, if they choose to. We have taken hundreds of finished sections from our hives in this way, which we considered an addition to our honey crop.

We can hardly agree with Mr. Heddon, to call it "the wrong place;" we always find the side-frames in the brood-chamber containing the most honey. Many solid side-frames of honey which we have recently taken from our perished colonies, are a proof that bees do not refuse side room for storing purposes, and we do not think that they possess the ability of discerning sections from brood-frames, but accept the former as readily as the latter, so long as they are in the same place. It seems that it is more in the immediate vicinity of the brood-nest that bees prefer, rather than the direction. The instance related above shows that they worked with the greatest rapidity in the case next to the brood-nest, less in the second, and hardly any in the third and fourth; for some of the glass boxes were never perfectly finished.

Mr. Heddon's assertion, "the well known fact that the very first place bees use in the spring, is in the top of the hive," does not indicate their objections to storing at the side. How is it, when we have a young swarm into an empty box hive (which comes the nearest to nature's provision) that the first used is the top, and yet, when the hive is filled and prepared for wintering, we find, as a rule, that most of the

stores are at the sides? Is it not their natural inclination to work sidewise as well as in any other direction?

The size and shape of the hive, locality, season, etc., may have a tendency to make one or the other plan more practicable, but we are convinced that side-storing is a great advantage, and we should use some side-storing arrangement, even if we used a hive as shallow as the Langstroth.

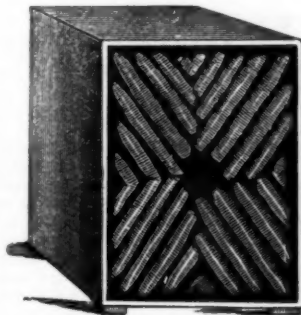
Naples, N. Y., May 23, 1881.

For the American Bee Journal.

#### The Cause of Winter Losses of Bees.

HIRAM ROOP.

A friend wishes to know why I would rather have 100 colonies left out of 200 wintered out-of-doors, than to have 150 left out of the same number wintered in the cellar (i. e., that is the way I put it), and as I have had no reason for changing my mind, I will tell why. I had, in the fall of 1880, 156 colonies of bees in the best condition for wintering; as were all the bees in this part of Michigan. Thirty-eight of my colonies were in the winter-protector hive; the rest, 118 colonies, we put into a cellar, where I had wintered without loss during the past 10 years. As a result, I had on June 1, 1881, 19 colonies left from those wintered out-of-doors, and 21 left from the cellar; that I have kept alive by giving combs of brood and bees taken from the out-door colonies. Many of my friends know that this was my first severe loss as a bee-keeper, and I want to say that I am not discouraged, and while I do not wish to be on the contrary side, I must disagree with all that have offered theories as a cause for this mortality among our bees. When asked my opinion, I answer by asking what caused the yellow fever in



the South? the epizootic with the horse? Our bees and their honey were all right, but the weather was all wrong; i. e., atmospheric changes. One of our neighbors had, in the fall of 1871, 84 colonies of bees in box hives; the next spring all had died but one, and that one was strong and commenced swarming early. In the fall of 1880 he had 32 colonies in box hives, and lost all again, except the same old box, and that cast a large swarm on May 27, 1881; the combs in the box are built from each corner to the center (as shown in above engraving). I know of many more like instances but give this one for the benefit of that class who think no further improvement in hives necessary.

Carson City, Mich., June 13, 1881.

For the American Bee Journal.

#### Experience with Comb Foundation.

JAMES S. LORD.

I have read the BEE JOURNAL for years and have noted all the articles on foundation, giving the good and bad points of all the different kinds. I tried 2 kinds last year—the flat-bottom and the Root. Some of my hives take frames 10 $\frac{1}{2}$ x13 in. inside, the long way up and down. I know this is the reverse of most of the frames in use, but I think in severe winters, like the past one, they will winter bees better than shallow frames. I know they have with me, for I have both kinds, 10 $\frac{1}{2}$ x13 and the Langstroth. I practice natural swarming and I cannot get foundation to stand the weight of a large swarm, unless it is wired, and I do not believe it can be made to stand, unless it is wired, on as deep a frame as mine. I tried 5 swarms on the Root, and it all fell down, some close to the top-bar and some an inch lower, and it nearly ruined the bees in 5 hives. I put 40 colonies on wired flat-bottom foundation, 8 frames to the hive, and into 2 hives I put 2 heavy swarms each, and there was not a bad comb in the lot, and all were built out in a very short space of time.

I did not see a full card of sealed brood; once in a while there was an empty cell, but not enough to make any material difference; I never saw a solid card of brood, even on natural combs, but I have seen brood in cells that the wire ran through, and I think the queen did not skip them oftener than she did the other cells; still I think I should like foundation with a natural base better, if I could have it wired. The Given press will do that, but I must own a press because my frames are not a regular size, and the dies must fit the frames.

I have 60 colonies of bees now on my sized frames and could not afford to change, and would not if I could. My hives are made to pack all around and over the bees in winter, and in the honey season I use side boxes, 12 outside the frames. I get 56 4 $\frac{1}{2}$ x5 $\frac{1}{2}$  boxes within 6 inches of the brood-frames, and I like them better than tiering up.

I do not like to run Mr. Hawley out, in the stingless bee enterprise, but I have any quantity of colonies that I will warrant not to sting.

Probably 90 per cent. of the bees in this section are dead. I have informed myself and will give the report of 8 or 10 who use box hives and single-walled hives:

No. 1, lost 20 out of 22; 2, 27 out of 29; 3, 80 out of 87; 4, 12 out of 14; 5, 7 out of 7; 6, 10 out of 10; 7, 30 out of 30; 8, 60 out of 100; 9, 33 out of 36. Others have lost in about the same ratio.

I commenced the winter with 70 colonies; 10 of them in old hives that I did not have time to transfer, and the other 60 are in the "Genesee" hive. I did not pack the old coolies, and have lost 6 of them; the Genesee hives were all packed in planer shavings, and I have lost 5 of them. They had a flight on Nov. 10th, and did not have another until Feb. 10, just 3 months; this shows quite a difference in favor of the "Genesee" hive.

Linden, N. Y.



For the American Bee Journal.

**Are Bees a Nuisance?**

J. H. MARTIN.

Mr. Heddon wishes for information about bees being a nuisance. There has one case of the kind come to my knowledge. An apiarist in Vermont built up a very fine apiary of black bees, and took pride in keeping it in order, beautifying it with flowers and rose plants. He secured great yields from his 60 or 70 colonies, and was prospering finely in the business.

This apiary was located in a small hamlet of half a dozen houses. The nearest neighbor on the south was close to the apiary; the yard also faced the public highway. Neighbors on the south being so near the bees, members of the family were frequently stung, but our bee-keeper was indifferent to pains and swellings, and rather enjoyed the fun. There was so much complaint from this neighbor that our bee-keeper thought of the brilliant idea of running a high board fence along the south side of his apiary, and within a foot of his neighbor's house. The idea was put into execution soon after being born, and 2 windows that were a pleasure to the family, were rendered useless and darkened by the high board fence.

The ire of the neighbor was aroused. He knew that besides members of his family, members of other families on the north and horses on the highway had been stung. An organized effort was then made against the man with bees, and they were complained of as a nuisance.

The selectmen of the town were called upon to investigate the matter. They came and hitched their horses upon the highway—one of the horses was stung, and the apiary was soon decided to be a nuisance, and the bee-keeper was compelled to remove it to an orchard several rods from the highway. The board fence, however, still stands.

Now, we claim that if our bee-keeper had been upon friendly terms with his neighbors, and given them a pound of honey now and then to alleviate the pain, and had shown any sympathy whatever for their sufferings, his fine apiary would never have been removed; charity and kindness would have made them friends and defenders, instead of enemies.

This is the only case of bees being considered a nuisance that has come under my notice, and the bee-keeper himself is clearly to blame.

Hartford, N. Y., June 11, 1881.

For the American Bee Journal.

**Upward Ventilation.**

F. H. MINER.

In a review of my former article on the above subject, Mr. Doolittle on page 65 of the BEE JOURNAL for March, says bees in a tree cut out the part softened by decay above and around them, and glaze to get a good condensing surface to prevent absorption, which would deprive them of water, hasten decay, and ruin their work. He says "they go in at the top;" if so, they must be in a bad fix. All upward-ventilationists agree they must have tight tops to maintain a breeding temperature in spring, but can breed very well in winter with a big hole above them, and the thermometer 30° below zero. He further says my predictions of "great losses are all groundless;" I wish it was so. True, they did not smother—with open tops, nobody said they would—but wore out creating heat. He calls my attention to the hollow tree. There is where I studied my lessons, and was under the impression he laid the losses to the old basswood-gum men. I have examined a great many trees, and inquired of bee-hunters, and with very few exceptions bees go in at the bottom or side; the decayed wood, kept dry by glazing, is a good non-conductor. He further says, with upward ventilation the bees make the circulation. Just so; where there is life there is heat; hot air is light, and rising, escapes where there is a big hole in the top, while the cold outside air is heavier, and flows in to supply the

vacuum; the more heat they generate the faster it escapes, the movement being determined by the difference between outside and inside temperature. It is impossible to be comfortable in such a place; contraction is the resource, the increased consumption of honey and air, the sources of water, make too much, and it condenses and congeals too near the bees, because our hives are cold, ill-shaped, too much radiating surface, and too thin. They perish in the cold season; cold and wet does it. Mr. Doolittle does not believe in giving water—all right; nature does that if we do away with absorbents. He says they should not breed early, but nature takes no counsel of us; she has given instinctive foreknowledge we cannot safely interfere with. I find it difficult to confine them until pollen is plenty; they seem to know when the outside air is warm, and get uneasy.

Mr. Doolittle says the majority of apiarists believe in upward ventilation; that is encouraging. I remember when they were all that way, and I was a heretic. The writers, the masses, never adopted an error so contrary to nature, and unknowingly took Francis Huber's advice to study nature. Burket says he has a colony which has been in a gum for 20 years, and with other old bee-keepers says they are best to winter in; as they are spherical, narrow and easily warmed; the Deity sends them there for a home, and he knows almost as much as we do, though we do not think so or we would not sneer at the old log gum. Mr. D. speaks of a large hole near the top for the bees to go in and out, which prevented losses. Forty-one years ago I was green enough to try a fly-hole just under the cover. The bees made a stopper of their bodies to retain the heat for comb-building and breeding purposes, contracted the hole with propolis, allowed no ingress or egress, and used a fly-hole lower down.

The upward ventilation theory requires changes and attention which could not be given in a state of nature—a little water on a sponge, closing the top in the spring, etc. Thus, condition must do for all seasons, and if ever practical, it is only in artificial circumstances, while lower ventilation is adapted to all times and situations. The bees come out and go back, thus controlling the temperature at all times. Our frequent and severe losses, and the great difference in essentials between practical men, proves we have not much wisdom. I want no absorbents about my bees to hold moisture, because it will freeze and remain to keep them wet. I have tried many kinds of hives, and think the surplus water should go out below, as in a state of nature. Unless our teachers can tell me something better, I may go back to that old contemptible log gum. I know they will winter there.

Crescent City, Ill.

For the American Bee Journal.

**Keeping Bees on Stilts.**

W. G. P.

Mr. Hopeful concluded he would keep bees. He was fully persuaded in his own mind that it was the most fascinating and profitable avocation on the face of the earth. Had he not looked through the "A B C of Bee-Culture," and digested several whole chapters of Cook's "Manual of Bee-Keeping," and fairly got the "Blessed Bees" by heart? Could he not expatiate upon the wonderful accomplishments of the winged insect—the busy bee—and even soar up into the sublime heights of poetic thought as he dwelt upon their manifest agency in the affairs of nature? Surely 100 colonies would just "set him up," because, according to John Allen, they ought to yield at least 500 lbs. per colony, and certainly after friend Hasty got his improved clover into operation, one could double that yield. Good Mrs. Hopeful mildly suggested that, though it certainly looked promising, she once knew a man who only got 1/4 of that amount from 2 colonies, and thought he did pretty well. Mr. Hopeful rather impatiently said something that sounded like Jack—and then proceeded to enlighten the sadly

informed Mrs. H. upon the subject of bee-culture.

As in deep fervency of spirit he proceeded to enlarge upon the mysteries of scientific apiculture, dear little Mrs. Hopeful's heart also began to expand towards him, and she was heard to exclaim in an undertone, "La me, how much he does know." Yes, bee-keeping, he reasoned, was certainly his special province, for who ever heard of an individual that could "talk bees," that wasn't bound to succeed with them? True, says he, Doolittle and others have uttered cautions and advised beginners to "make haste slowly," but of course they are only croaking. "Give me the bees and I'll show 'em." As good luck (?) would have it, along came Tom Cheat that evening, and hearing that Mr. Hopeful had a violent attack of the bee-fever, slipped in to see him (you see friend Hopeful had fairly made his neighbor's ears buzz by his incessant talk about bees). Tom had about 40 "gums" (how contemptuously Hopeful smiled in his sleeve on hearing that last word) and would sell them at the low price of \$6.50 each, just because he hadn't the time to spare to "tend 'em." Furthermore, he heard Bill Slambanger remark that his (Tom's) bees were the "rale Itland bees." That last remark was a clincher for Hopeful; he closed the bargain on Tom's terms, then and there. Surely being Italian bees they were a bargain. What if it did finally compel him to sell his best cow to replace this outlay? Italian bees weren't to be bought every day and money wasn't an object in comparison. Tom, being severely troubled with corns, it would, he said, greatly oblige him if neighbor Hopeful would come himself and remove the bees. Hopeful readily assenting. Tom smiled as he then Chinese are supposed to, and jingling his cash, was off.

It was on a salubrious spring morning, not many hours after this, that our esteemed friend went after his purchase. He hitched up to the old springless farm wagon, of course, as it would hold the most. Son John accompanied him; he was anxious to get his "pets" home before they "thawed out," for it didn't require "book larning" to teach him that bees "froze up" during the cool months the same as bears, etc. Arriving at Tom's he bethought himself to look at the little beauties, and be assured, to use his words, "that they were still torpidized." Sure enough, as he boldly peeped under several stands, there they were, so quiet, and still, and stiff. Why he could (he declared to John) put his hand right up beside them and not so much as feel them stir, unless it was to drop to the bottom-board. He was delighted; he looked at still another. This was somewhat heavier. He enjoyed to fondle these "darlings," but so suddenly and very energetically he withdrew his hand, snapped his fingers, and John asserts down to this day that he uttered an exclamation that sounded very much like "golly"—anyway, he quickly remarked that he guessed he wouldn't examine any more. Tom suggested putting an old bag over some of those that he was afraid had been awakened by wood chopping in the next yard. This was very thoughtful of Tom. So they loaded them up—the whole 40—thanks to Tom's ingenuity, and drove off. John was assigned the driver's seat, while the proud father rode astride the load to direct the movements of the precious freight. All went smoothly as need be for the first mile, though John remarked that he thought the old mill dam must have given way again as he heard such a roaring near by. They did not investigate, however, until friend Hopeful ordered a halt, as he said, "to pick out the silvers" from his nether limbs. A search revealed the fact that the so-called "gums" were very rough on the exterior, and some of Mr. Hopeful's bees seemed intent upon examining said roughness, as they rushed excitedly up and down the same. But such trifles failed to disturb Mr. H's equanimity. He chose a more favorable seat and the line of travel was resumed. A turn in the road brought them in sight of Mr. Hopeful's peaceful abode. Suddenly there were signs of excitement exhibited on the part of

the off horse, and a sudden muscular raising of the hinder limb, which resulted in the entire destruction of one of the "gum heads" as the lively animal's hoof dashed into it. Both horses now became remarkably animated, John had no opportunity to investigate, but he was morally certain that he was sitting upon a very rough and much splintered piece of bee-furniture, and that it felt very hot to him. At this juncture the neighbors all say our friend Hopeful was frantically waving his bandanna handkerchief around his head. It was certain, as the horses rushed frantically into the yard, he was ejaculating something like "not so very torpidized, after all," "worse than hybrids," "get the hartshorn," and other like significant expressions. A future number will perhaps portray Mr. Hopeful's future progress in bee-culture.

For the American Bee Journal.

**Mi Lamentid Ded.**

B. HIX.

It iz ezy tu report disastur, when it don't kum klose to hum. I kan talk purty freely abowt mi nabur's losses, but when littenin striks me i aint quite sow volubel. Mi bea report wud hev bin spred befor the reders ov the JOURNAL long agow. Butt i wanted 2 git over mi solemnity a little, and alsow 2 sea if mi losses went above a hundred pur cent., whicht i haint, thanks 2 a warm spel. The first weak in March found me steppin' hi, and i wuz preparin' an article fur the press, on "How 2 winter beas sucksesfully." Butt there waz a hitch in the tune, and it haz gone into the waist baskit or oblivion, along with mi aspirations and mi prospective hunny krop. Marek 20, 1881, waz a sad da fur me, the wether waz warm and old "sol" shone mockingly down. A kold snap had intervened and i wuz onezy, fur the beas dident seam 2 take in the situation. Now and then a Backteary laden bea wud fly athwart the yard with a doleful dissentary hum that lingerd in mi ears like a funeral nell.

I notist a slight depreshion in mi feelins az i approached and lifted the kuver ov no. 1—ded, chaff, cos, starvation. No. 2, i lift the kuver tremusly, ded, gone to the land ov shadders packed in chaff. No. 3, ded, 2 much hunney jest out of reach fur a kold snap, snapped their thread of life. No. 4, hibrids, chaff, kombs the most fowlest ever seen, Butt not ded (ded enuff 2 da), i fix em, and proseed 2 No. 5, pure italions and ded, the sweat starts. No. 6 to No. 42, awl ded butt won and that purty week. I think of Muther Ship-ton's prophesy relating to the end of the world, and reflect that purhaps the awful fiatt or annihilation hez commenced in earnest. "And the evenin' and the mornin' waz the first da," March 21. If i rember kerekt, i dident sleep a very good slumber the nite befor. How kan i keep this thing from my nabors? shal i keep mum, or face the music like a man? waz the thots that drove mi sleep awa, 10 o'clock, a. m. With sett teeth and the agony ov hopelessness pictered onto my face, i lift the kover of No. 43, a large swellin' under the quilt rivets my attention—it sturs, and presently 5 deer mice, slick and fatt, skampur awa; a hole at one end reveals their base ov supplise. No kloggin' in this hive, bottum-board clean, beas in fine kondition, sum hunney and a little brude. What a pity i dident have mice enuff 2 gow round. The mice served a dubble purpose; they kept the bees dry and free from kloggin', also both beas and mice assisted in keepin' up the temperature. Az i sloly butt fully komprehendid the astoundin' revalation that perhaps a fatt wood-chuck in a torpid state, klose to the brude-nest, seperated by a skreen division-board, waz the kee tu unlock the dark mistery ov winterin' beas, i waz overkum with joy. Sixty kolonis moar waz hastily examind and 8 found alive. Butt the hang-dogg mournfulness which caracitized mi first day's performance had given wa 2 an abnormal kalm. That nite i slumberd; in mi dreems I saw mi emty hives, now



silent and 'grim, agin teamin' with the bizz hum ov industry, i saw the price of wood-chucks advancin' and wood-chuck farmin' on a grand skale waz fully developed, and the winterin' ov bees waz no more a question than the winterin' of a mule. I wanto gow onto the record az the furst man 2 utilize this quadruped ov the klover field. I have nun 2 sel and the plan wont be pattered. Deer reder, mi report iz be-four you and i hope you air satisfide.

## CONVENTION NOTES

Read before the S. W. Wisconsin Convention.

### Bee-Keeping—Will it Pay?

NEWELL FRANCE.

The idea many people have, that bees will take care of themselves, and bring the apiarist large returns for little or no labor, is incorrect and a drawback to bee-keeping, as well as inducing many to engage in the work who are not adapted to it, either in natural taste or love for it, capital to work with, or a sufficient knowledge to insure success.

Ignorance of bee-culture is one, if not the greatest cause of failures. Thorough knowledge of the business is necessary, as well as practical application and hard work.

Much information can be obtained by reading bee-papers and books, but actual practice in the apiary is just as necessary; in fact the successful bee-keeper must have both. He must always be willing and anxious to learn something for improvement, and if he is so, he will find plenty in advance for him.

In successful bee-keeping more depends upon the bee-keeper than on the kind of hive, bees, or even location, although these are important. He must have enough interest to know every month the exact condition of each colony, their wants, and how to supply them at the proper time. I know not of any other out-door work that depends so much on the right thing being done and at the right time. This is especially noticeable in the spring or harvest season, which, in this latitude, is so short, that a mistake then made may cause great failure.

He must be observing at all times; for instance, in the spring or fall, when there is nothing for the bees to gather, he hears a bee fly by with that peculiar hum of robbing—he must immediately find the cause, for if left a day or two he may find some colonies robbed of their stores, and perhaps those bees have become discouraged and left.

I have found, by experience, that activity is very important. The apiarist must move around quick, always being careful. Some people can move quick enough, but in so doing are careless, hitting things near by them, etc. This will not do, for often a jar or careless motion causes serious work.

In obtaining hired help I have found that boys 15 to 18 years old will be as careful and very much quicker than grown persons, besides, they do not demand as high wages. Some may not see the use of being so careful. I will illustrate: I have a frame with a new comb in it, full of honey, to extract; I am a little careless and jar the comb in taking it out of the hive, or in sweeping bees off, or I may hold the comb a little sideways—the result is the comb is broken and of no more use, and perhaps the honey lost also. Examples of this kind very easily occur at all seasons. At some of our conventions we have been asked if we thought such and such a person would succeed in bee-culture. That, of course, neither we nor anyone else knows until they have tried; but if they have poor eyesight, or are much of a cripple, I would not advise them to attempt it. It takes a keen and quick eye as well as good use of hands and feet. I am not of the opinion (which I have seen advanced) that a person of too poor health to do other kinds of labor can retire to the so-called easy work—bee-keeping—and make it a success. True, bees are interesting to study, and the Italians

beautiful in color, and will give pleasure, even to an invalid, but I much question the prospect of success for such to make it a specialty. With such a winter as we have just had, many bee-keepers of little or much experience are disappointed, and some are discouraged, determined to hereafter buy what honey they want, as it is cheaper for them than to bother with bees all summer, and when winter comes have such losses. I admit it does look discouraging, but he that succeeds must not get discouraged if he does have some losses. See the farmer—does he quit farming because some year his crops fail, or his stock becomes diseased? No. He goes right down to the scientific analysis of the cause; finds it, and how to hereafter prevent the same failure, and, in the long run, is benefitted by having had the failure.

So it is with the successful bee-keeper. If a trying winter comes, he will, if he succeeds, do all in his power to prevent any cause of failure before experienced. He must not be easily discouraged; ever determined, success shall be his portion. Generally, one extreme follows another. We have had a few years of easy work to succeed, but this last year has brought us the other extreme; why not look for its reaction in the year approaching? All bee-keepers, however, do not keep bees to obtain their profit from the honey produced. Many keep bees to rear queens and colonies to sell. This part of bee-keeping is getting to be quite extensive, and I think many realize a far greater profit this way than they would by producing honey. Thus our papers have many articles on Italians, claiming their superiority without practically testing, when, I think, the writer's object is to advertise himself as an Italian breeder.

The Italian bee was first imported into America in September, 1859, and ever since importation and home-breeding of queens has been constantly gaining, until at present the supply rather exceeds the demand, and importers are opening a new field by introducing other races of bees. Bees can, and have been greatly improved, but I think much is said when the object is to help to sell queens. My only objection is, it induces the beginner to place too much confidence on the supply dealer's advice.

Both the honey producer and supply dealer are needed, and can make it a success, if prepared and determined so to do. How many kinds of occupation are there that people engage in and are successful, without first having served some time with some one of practice? The blacksmith, wagon-maker, miller, carpenter, editor, etc., had to serve considerable time in practice or preparation before he was considered capable of doing business for himself. Why, I ask you, is the bee business an exception? Should not the keeper of bees be schooled and given practice, just as much as the learner of any other trade? Too many are trying to do too many kinds of business at once, to ever make it pay. If he is to be an apiarist, he must not let other business interfere when the bees demand attention.

Again, if you keep bees can you afford to take a paper or not? Yes; most certainly, if you have bees enough to have honey to sell. The best bee-papers are, the BEE JOURNAL, *Gleanings*, the *Exchange*, etc. The best books are, the "A B C of Bee-Culture," for beginners, and Cook's "Manual," for the more advanced and scientific.

Read before the S. W. Wisconsin Convention.

### Wintering Bees in a Pit.

REESE POWELL.

A dry pit is very well adapted for wintering bees, even though it be not wholly secure from frost; the temperature will be much milder and more uniform than in the open air or cellar; the bees will be more secure from disturbance and will be protected from the piercing cold winds, which cause more injury than the greatest degree of cold, where the air is calm.

Universal experience teaches us that the more effectual bees are protected from disturbance and from the varia-

tions of temperature, the better will they pass the winter, the less stores will they consume, and the more vigorous and numerous will they be in the spring.

The pit may be made 4 feet wide, 4 feet deep, and the length to depend on the number of colonies to be put in; the sides and top should be boarded, to prevent the loose dirt from falling in, and about 6 inches of straw or hay should be spread on the top to absorb the moisture (before banking lock the dirt), and 2 pipes on each end, 4x6, inside measure, to give them ventilation.

If either bees or stores are lacking they should be supplied during warm weather, so that all may be quiet and ready for the winter long enough before it becomes steadily cold.

All the hives should be examined about Sep. 1, and if they have not enough bees, double them; extract all the unsealed honey, leaving about 25 lbs. of sealed honey for winter, and if most of this is gathered in June, so much the better. Last year I took 4 combs of basswood honey, containing 25 lbs. in all, and gave it back for them to winter on, and took away all the late fall honey, and they wintered splendidly, and are now the best colonies I have; they seem to be as strong now as in the fall.

Read before the N. E. Convention.

### Requisites for Wintering Bees.

H. H. FLICK.

To a reader of our bee publications it is plain that there are many bee-keepers or persons who keep bees in summer but not in winter; many others have doubtful or ill success in wintering.

I made my system of winter management public in 1873, through the *Busy Bee*, and have since written various essays for our conventions, upon the same subject; but in bee-culture, as in everything else, we need "precept upon precept," hence my excuse for again writing upon this threadbare subject.

A theory is known to be correct, when, being put in practice, it proves true. My system is based upon common sense and well known facts; is exceedingly simple and easily understood. It was proven successful for 7 successive winters, not having lost a single colony by this management, while colonies in the same apiary, and others in this vicinity, not cared for as described hereafter, have perished.

Preparations for successful wintering must commence in spring, as soon as the honey season opens. All colonies must be kept strong. A good bee-keeper will not permit his bees to be reduced in numbers, either by natural or artificial swarming; neither will he extract honey from the brood apartment. This is a vital point. Early honey stored by the bees in the brood chamber is always good, and if the bees are properly managed, enough good honey will be placed in the brood frames for the bees to subsist on during the severest weather. Many bee-keepers make a mistake right here, by extracting all the good honey, and expect the bees to live on fall-gathered sweets. I never extract from the brood chamber, but keep good vigorous queens, and abundant surplus room, and I never find the queen crowded with honey, neither have I a complaint about late breeding. Frost usually kills all honey-producing flora during the latter part of September, and our bees never breed in October, yet they always winter and spring safely.

We are situated in 40° north latitude; elevation above the tide water, 2,200 feet. We are located in the valley between the Allegheny and Laurel Ridge mountains, and our winters and springs are pretty long and severe, on account of our high latitude.

If there are any weak colonies in the fall, they must be united, and if any are short of stores, they must be provided for by giving combs from those colonies that have too much. No colony should go into winter quarters with less than 30 pounds of good honey; more will do no harm, and it must be in as compact a form as possible. To have the stores for winter spread over 8 or 10 combs will never do, as the cluster of bees cannot change combs in cold weather.

The size and shape of the frame has much to do with successful wintering; the frame I use is 13x19 inches outside dimensions. By using this sized frame the bees have the sealed honey above, and rearward of the cluster, the warmest part of the hive. As the honey in the forepart of the combs is consumed, the cluster gradually moves back.

During the breeding season we use 7 of these frames. In the fall we contract to 5 or 6. These are placed in the centre of the stand; across the top bars I lay 3 or 4 sticks  $\frac{3}{4}$  in. square, and cover with a good woolen quilt. These sticks permit the bees to pass over the top bars from one comb to another. I also have passage holes 3 or 4 inches below the top bars in the combs, thus giving access to all parts of the hive.

By placing the combs in the middle of the outer case, or house, an empty space is left on all sides between the brood chamber and outer case. This is filled with chaff or finely cut straw. The space above the quilt is also covered with the same material, to a depth of 17 inches. This keeps the bees warm by retaining the animal heat, guarding against sudden changes of temperature, and insensibly carrying off the vapor, exhaled by the bees. Under the roof at each end, I have ventilators to permit free circulation of air above the chaff to prevent moisture from collecting in the packing. Bees packed in this way need very little ventilation.

In the winter of 1878-9, about  $\frac{1}{2}$  of our bee-houses were entirely covered with snow for 2 or 3 weeks, the winter being a severe one, but no ill effects followed; swarming commenced as early as the 5th of May.

I close the entrance to about  $\frac{1}{2}$  inch, and the portico slides brought together within about  $\frac{1}{4}$  inch—the entrances not matching—one being set at the right side of the portico, and the other at the left, thus preventing cold draughts of air or snow from entering direct. This also makes it impossible for mice to enter. Whatever hive may be used, care must be exercised to exclude mice; the entrance must be well guarded against these depredators.

During the winter, on mild days, when bees fly, the entrance can be enlarged, and the bees may be assisted in removing dead bees and litter, when long confined; this, however, is not necessary, only a help. For this purpose a long handled scraper, made from heavy wire, should be used. The refuse of the hive should be scraped into a receptacle, and carried away from the apiary. The manure heap is the best place for such filth. At other times the bees should not be disturbed, but let severely alone. The packing may remain until warm weather, according to locality, when it must be taken out clean, the colony inspected, and put in shape for its summer labors.

There are 7 fundamental principles: 1. We must have all colonies strong; 2. each must have a fertile queen; 3. plenty of good food easy of access; 4. never extract honey from brood frames; 5. a frame of the proper size and shape; 6. passage way across and through combs; 7. ample protection against the sudden changes of temperature, whilst properly ventilated so as to insensibly carry off the moisture exhaled by the bees.

The advantages of this system are:

1. There is no trouble in carrying heavy hives to and from the cellar.
2. Bees can fly any time during the winter when the weather will permit.
3. During cold weather in spring, packed hives are warm, and bees breed much more rapidly than in any other way.
4. The preparing and packing for winter can be done during early fall at leisure times, and when packed they need no more attention till spring except to enlarge the entrances once or twice during mild weather.
5. We find no moldy combs or diseased bees.
6. Bees wintered in this way in pure air are strong and vigorous, breed up early, and "spring dwindling" is unknown.
7. There is satisfaction in knowing that your bees are comfortable, and by safely wintering all your colonies you find them strong when the honey season opens.

Lavansville, Pa.





THOMAS G. NEWMAN.  
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JUNE 22, 1881.

### Special Notice.

The next number of the Weekly BEE JOURNAL completes the first six months of its existence. We are more than pleased with the manner in which it has been received, and the welcome that has been accorded to it everywhere.

Several thousands have only subscribed for six months, and their subscriptions expire with the next number. To all such we wish to make a few remarks:

By sending on their renewal at once, they will not only prevent the annoyance, to themselves, of missing the regular visits of their old friend—the Weekly BEE JOURNAL, but they will save us much trouble in taking their names off from our mailing lists, and then re-entering them within a short time. We hope all will renew at once or else send us a notice, by return mail, if they desire its visits continued.

Once in a while we receive a rather uncourteous letter because the BEE JOURNAL is discontinued when the time is out that has been paid for. We try to please all our subscribers, but it is not an easy task for us to determine who does and who does not want it so continued; so we must ask to be informed on the subject.

The following is just such a notice as we wish all would send who desire to have it continued without intermission. Then we put this mark, "||Jun 81," after the name on the wrapper label, and when so marked we do not stop sending the JOURNAL until we receive an order from the subscriber to do so.

"Please continue my JOURNAL right along; if I do not send the money on the day it runs out I do not want you to stop it, for I want every number as soon as it is published. I will send you the money just as soon as I can make it convenient to go to the post office to get a money order. W. C."

Now, if all who desire it so continued would drop us a postal card, or mention it when they are sending a remittance, it would save us much trouble and themselves the annoyance of having the JOURNAL stopped.

**Too Much Drone Comb.**—Mr. R. P. Williams, of Goldsmith, Ind., asks the following questions:

1. How much drone comb should be left in the hive?
2. Will all eggs laid in drone comb hatch drones?
3. I have some very nice combs which contain all drone cells; how can I keep the drone brood out of it, or shall I cut it out?
4. How many queen cells ought to be left after dividing, in the colony that has no queen?
5. Is it the fault of the queen, or the bees, that there is too much drone comb? Do the bees make the comb, whether she is a drone-laying queen or not?

1. As little as possible, if you are running for surplus honey.
2. Yes.
3. Do not, under any circumstances, leave more than two drone combs in a

hive—one at each outer side of the brood chamber; better, however, cut it up and put it in the surplus boxes, and supply its place with good worker foundation.

4. It matters not how many; the first queen emerging from a cell will look after the remainder.

5. At the time of honey-gathering, if obliged to build new combs at the outside of the brood-nest, the bees quite frequently construct it with drone cells. This is one of the forcible arguments in favor of the use of comb foundation. Of course, when bees are determined to have drone cells, they will build them, even though they have to cut away worker cells to get room to do so; but, as a rule, drone comb can be almost entirely excluded from the hive, by using good worker foundation, to be given no faster than they can work it out. If it is desirable that the queen occupy it, place it alternately in the centre of the brood-nest; if desired for honey-storing, then place at the sides of the brood-nest next the hive.

### Law against Adulteration in Illinois.

The Legislature, just before adjourning, passed the following law against adulteration in Illinois. We hope it will not be allowed to stand, "a dead letter on the Statute Books of the State." It should be strictly enforced:

The law provides that no person shall mix, color, stain, or powder, or order or permit any person in his or her employ to mix, color, stain, or powder any article of food with an ingredient or material, so as to render the article injurious to health or depreciate the value thereof, with intent that the same may be sold; and no person shall sell or offer for sale any such article so mixed, colored, stained, or powdered; that no person shall, except for the purpose of compounding in the necessary preparation of medicine, mix, color, stain, or powder, or order or permit any other person to mix, color, stain, or powder any drug or medicine with any ingredient or material so as to affect injuriously the quality or potency of such drug or medicine, with intent to sell the same, or shall sell or offer for sale any such drug or medicine so mixed, colored, stained, or powdered; that no person shall mix, color, stain, or powder any article of food, drink, or medicine, or any article which enters into the composition of food, drink, or medicine, with any other ingredient or material, whether injurious to health or not, for the purpose of gain or profit, or sell or offer the same for sale, or order or permit any other person to sell or offer for sale any article so mixed, colored, stained, or powdered, unless the same be so manufactured, used, or sold or offered for sale under its true and appropriate name, and notice that the same is mixed or impure is marked, printed, or stamped upon each package, roll, parcel, or vessel containing the same, so as to be and remain at all times readily visible, or unless the person purchasing the same is fully informed by the seller, of the true name and ingredients (if other than such are known by the common name thereof) of such article of food, drink, or medicine, at the time of making sale thereof or offering to sell the same; that no person shall mix oleomargarine, suine, butterine, beef fat, lard, or any other foreign substance, with any butter or cheese intended for human food, without distinctly stamping, marking, or labeling the article or package containing the same with the true and appropriate name of such article, and the percentage in which such oleomargarine or suine enters into its composition; nor shall any person sell, or offer for sale, or order or permit to be offered for sale, any such article of food into the composition of which oleomargarine or suine has entered, without at the same time informing the buyer of

the fact, and the proportions in which such oleomargarine, suine, or butterine, beef fat, lard, or any other foreign substance has entered into its composition:

*Provided,* That nothing in the act shall be so construed as to prevent the use of harmless coloring matter in butter and cheese or other articles of food; that any person convicted of violating any provision of any of the foregoing sections of this act shall, for the first offense, be fined not less than \$25 nor more than \$200; for the second offense he shall be fined not less than \$100 nor more than \$200, or confined in the county jail not less than one month nor more than 6 months, or both, at the discretion of the court; and for the third and all subsequent offenses he shall be fined not less than \$500 nor more than \$2,000, and imprisoned in the penitentiary not less than one year or more than 5 years; no person shall be convicted under the foregoing sections of this act if he shows to the satisfaction of the court or jury that he did not know that he was violating any of the provisions of this act, and that he could not, with reasonable diligence, have obtained that knowledge; the State attorneys of this State are charged with the enforcement of this act, and it is hereby made their duty to appear for the people and to attend to the prosecution of all complaints under this act, in their respective counties, in all courts.

### Methods of Using Foundation.

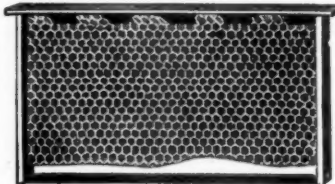
We frequently receive inquiries similar to the following, from parties who have been more or less annoyed with foundation breaking down, etc.:

I am perplexed—almost out of humor. I fastened the foundation on to the frames, as I supposed, according to law (pressing down with a putty-knife), but it does not stay. As I opened the hive of a swarm two days old, the other night, I found three sheets of foundation lying on the bottom of the hive. I was vexed; I resolved to go to headquarters for information. Now, will you please give in the next issue of the BEE JOURNAL full directions for fastening foundation on the frames? Give full directions for handling foundation. Is it best to fill the frames full, or will starters two or three inches wide serve to keep the combs straight? Nothing is more provoking than crooked combs in a colony of bees. I wintered in the cellar, had good luck, and bees are doing nicely now, with plenty of clover and rain. I examined a swarm one week old Saturday, that was nearly full of nice comb, honey and brood; will put on surplus sections this week. J. M. A. M. Galva, Ill., June 13, 1881.

We can only answer the above questions by giving our way of using it, and referring to some of the methods practiced by others, but will recommend no particular plan for fastening it, for the reason that practice and painstaking has much to do with acquiring facility and perfection in anything pertaining to the internal economy of the hive, and we do not wish to provoke any discussion with those who have derived satisfaction from a plan differing wholly or in part from ours.

We use Langstroth frames with a V-shaped top-bar; the foundation is just as wide as the inside of the frame from the bottom-bar to the lower point of the top-bar, and is one inch shorter than the frame from end to end. When ready to use a set of frames, the foundation is placed on clean paper, evenly piled, with the straightest edge next the operator; now with a sharp knife make four incisions or cuts half an inch long down through the foundation to the paper, and at equal distances from each other and the ends; with the hands placed at each end of the pile, turn up the two end-cuts with the thumbs, and proceed to the center, which is also

turned up, now lift the sheet clear from the pile and turn the two remaining cuts or flaps in the opposite direction; lay the sheet down with the top edge nearest you, place the frame with the lower or sharp edge fitting closely to the joints formed by alternately bending up and down the flaps, and press the foundation to the top-bar with the thumbs, drawing to you. When warm and the wax quite pliable, the work is very speedily and effectively performed—scarcely requiring more than ten minutes for a full set of frames. The foundation will reach within half an inch of each end-bar and the bottom-bar, and give ample room for the bees to pass from side to side. Of course, a greater number of cuts will do no harm except to take up more time. With good foundation we have never had any breaking down, warping, nor sagging to any appreciable extent. The engraving will give a comprehensive idea of the appearance of a sheet of foundation ready for the hive.



Many bee-keepers use a top-bar with a tongue or in-set projecting below its surface, to which they fasten the foundation by pressing with a putty-knife. Others lay the edge of the foundation along the tongue, and fasten by tacking a thin strip of wood over it. Melted beeswax and rosin is used a great deal, with which the foundation is sealed to the top-bar. Split top-bars are used by many, and possess some advantages over most other kinds. These, however, necessitate considerable labor, as the nailing down of the top-bars cannot be completed till after the insertion of the foundation.

Starters two or three inches long will not always insure straight combs, but, of course, are much better than empty frames; but with a good article, full sheets are much more satisfactory.

In hiving swarms, if very strong, we would throw them on full sheets and a full complement, to prevent concentrating too much weight on a few; but if building up, then give full sheets, in the centre of the brood-nest, only as fast as they can use it.

On page 2 of the first number of the Weekly BEE JOURNAL, "M. B." had an article on "Fertilization in Confinement," and promised a full description of the cage used, etc., during the present year. Mr. Louis Hofstatter has waited patiently, but says he has now become very anxious to hear from the experiment, and asks us to call on "M. B." to "rise and explain." He must remember, however, that so far we have had but little suitable weather for such experiments, and must wait with patience, and give time sufficient to make several experiments, for such only will be of any value to the science and art of bee-keeping. Slipshod experiments and hasty conclusions are always deceptive and undesirable. Let all wait until the experiments are completed, and then, doubtless, all will receive the coveted information, or else a full explanation concerning the failure. We can well afford to wait.



## AMONG OUR EXCHANGES

### LONDON JOURNAL OF HORT.

**Capturing Bees that were lodged in Stone Walls.**—Mr. Frank R. Cheshire gives the following incidents, showing how colonies in inconvenient places may be dislodged and made to enrich the apiaries of their captors:

The double wall formed part of an old structure, and through the aperture, the result of decay, the swarm had evidently entered, and had utilized, as we afterwards found, an interspace only  $\frac{1}{2}$  inches wide from front to back. A bricklayer was employed to cut out the front bricks, to lay the colony open to view, and this work acted like the hive-beating in driving, completely quieting the bees, which made no resistance to the removal of their comb. The bricklayer was not a bee-keeper, and so it soon became expedient to remove the bricks myself, lifting out the honey-combs as it was possible to free them. These I found about 3 feet 6 inches deep, and supported at intervals by cross bricks, but unfortunately, as we came upon the brood-combs, the queen retreated, with the greater number of bees, into the recess beyond reach. All the brood-combs, by cutting, trimming, and fixing into frames, were made ready for the hive, but the inhabitants, except the very young, flew from them and returned to the wall. The queen was not with us, while nearly all the bees were with her, and quite inaccessible, unless so much of the wall was to be removed as to endanger its safety. In the dilemma we fixed the frames with their brood-combs as nearly as possible in true position, and in the spot the brood had previously occupied, nailing up over all a large gardener's mat.

So soon as quietude was restored, the bees, with their queen, returned to feed and warm their young. The next morning the mat was lifted with as little disturbance as possible. The insects were discovered closely clustered, putting their plundered house in order. The hive to receive them stood against the wall just under their old entrance. Frame after frame was lifted down, the queen, in due course, making her descent with the rest. The few bees that took wing soon learned the position of their comrades, and the colony was established in its new quarters with but very little loss, and yielded its owner a fine super at the close of the summer. The main point of interest rests in the manner of capturing the queen by restoring for a time the combs, to which she will infallibly return, when their second movement is too rapidly and quietly accomplished to give her a chance of eluding us.

But to our second case. The 3 or 4 colonies in the roof of Much Hadam Church, the descendants doubtless of one, had behaved so badly that further forbearance was impossible. A swarm was sent out on the morning of a confirmation, and, audaciously entering the church window, clustered on the ornament not far from the pulpit, and one reckless bee from this cluster committed the sad indiscretion of stinging a bishop. This sealed their doom, and not long after ladders were raised, and your humble servant was peering down between the slates, as the saucy insects were traveling in and out through 4 or 5 openings. The master builder in attendance came to give directions, but a gust of wind, common to such altitudes, nearly carried away his hat. His rapid movements in preventing this catastrophe produced a worse, for 5 or 6 bees, which regarded this quickness as a menace, took aim at his uncovered scalp and caused him to retire discomfited. A practical breach was soon made, and then painful after painful of honey-comb, which at length fairly filled a large saucer bath, was the first instalment of the booty. The brood-combs followed; but as before, the bees retired and had to be gained by the ex-

pedient previously explained. While the queen and retinue were returning to their old quarters, so as to make their final dislodgement easy, the extractor was set to work upon the comb honey, and soon 60 lbs. of splendid honey was freed from wax and pollen. After the final removal of the bees the following morning, the hollow in which this colony had existed for several years was, by my order, filled with coke previously saturated in carbolic acid. This last substance emits an odor so disgusting to the genus *Apis*, that no fresh swarm is likely to choose this spot as a dwelling place.

### MISCELLANEOUS.

**Comb Foundation for Surplus Honey.**—Mr. Dougherty, in the *Indiana Farmer*, remarks as follows:

The merits and demerits of the use of foundation for surplus honey has been under discussion since its first introduction, and although at first there was good grounds against its use, with the improvements of the last few years, it has become a success, and with one or two exceptions, is used extensively by most of our practical bee-keepers. We have experimented extensively in its use, and do not hesitate to recommend it for use in the surplus boxes, not alone a strip in the top of the section as a starter, but that the sections be filled quite full, giving the bees a good start, insuring straight combs, and in much better shape than where the bees are allowed to build the comb at will.

A French paper relates that at a village near Florenville (Luxembourg) a gentleman, walking along beside a wood, saw some bees swarming on a straggling branch of an oak tree. He went to fetch a hive, and returned, with a wood-cutter named Guiot, who climbed the tree, and sitting astride of the branch, cut off the extremity of it upon which the swarm hung. An unexpected result followed: instead of falling to the ground, the swarm dispersed, and, raising like a whirlwind, settled on the head of the unlucky Guiot, who was still sitting on the branch, 45 feet from the ground. The bystanders shuddered. Surely, they thought, he will be seized with giddiness, and tortured by a thousand stings, he must fall to the ground. But Guiot called up all his strength of mind, and remained until the swarm had formed 2 long wreaths hanging from his temples, and waving as he moved; then half blinded by the insects, which also covered his face and body, he contrived to descend from his elevated position, taking the greatest care not to irritate this living mantle. When he arrived on terra firma a hive was placed on his shoulder, but 3 hours elapsed before the bees would take possession of their new home. When this happy change was effected the poor wood-cutter's wild delight testified to the intensity of the anxiety and discomfort he had endured.

**The Season in England.**—The editor of the *British Bee Journal* remarks as follows on the honey season in England:

If the past month of May has not been all that could be desired, it has, on the whole, been a charming one and a vast improvement on many in preceding years. The usual "break" occurred in the middle of it, but did not continue as long as former experiences led us to expect, and, excepting that the nights have been cold, the bees have been doing well. Swarming is late, which perhaps may be accounted for by the excessive labor of the bees in honey gathering, many of our hives being less populous in the third than in the first week, a glut from the orchards being available before they had made sufficient headway in the brood-nest, and the loss of life by overwork great in proportion. In gardens where no bees are kept there is the usual complaint that the early fruits are dropping off, and the frosty nights and blight are blamed as the cause, but the absence of bees is doubtless the true one, while

others are described as "shy." Our gooseberries hang "like ropes of onions," the blossoms having had ample fertilization—a fact well worthy of careful attention by those who grow fruit for profit.

**Bee-Keeping in Texas.**—The *Land Register*, Boerne, Texas, remarks as follows:

Bee-keeping, from a very small beginning, is receiving considerable attention in Kendall county. That the business is a profitable one all agree who have given it attention. The returns are very large in proportion to the outlay of capital and time; the seasons and wild profusion of honey plants are all that is necessary to insure success to those bee-keepers who are prepared by needful industry and intelligence to make the most of the business. As an illustration of what can be done with bees in this country, Mr. Moore, of Llano county, took in one season, from one hive, 230 lbs. of honey, which, at 20 cents per lb., would net \$46 on an investment of less than \$5.

**Extracted vs. Comb Honey.**—As to which kind is the most profitable to produce, Mr. Dougherty, in the *Indiana Farmer*, remarks as follows, and at the same time indorses the views of the *BEE JOURNAL*. He says:

As to which kind will pay the best depends upon how it is to be sold, wholesale or retail, distance to market, etc. You can produce  $\frac{1}{2}$  more, good well ripened extracted, than you can of comb honey, and when you have a good home market, at retail, extracted honey will bring within a few cents as much per pound as comb honey. Where honey has to be shipped long distances, extracted honey will undoubtedly pay the best. The freight is cheaper. The loss from breakage and leakage is much less. Extracted honey is growing in favor rapidly, and in the near future comb honey will be in little demand. In creating a home demand it is well to produce both kinds, and as the trade increases supply that which gives the best satisfaction. In producing extracted honey caution is necessary in not extracting unripe honey and in extracting so much as to rob the bees of necessary stores. Some bee-keepers practice extracting the honey as fast as it is gathered, but honey in this condition lacks the fine flavor that belongs to a good article of extracted honey, and is liable to ferment and sour. None but a thoroughly good article should be produced and placed on the market, as the price will depend upon the quality you offer. You should only produce extracted honey that is equal to the very best article of comb honey. It is but little trouble to secure a crop of honey, when the extractor is judiciously used, during an ordinary honey yield, whereas at times it is almost impossible to make the bees work in the surplus boxes.

**Marketing.**—In a short time the honey crop for 1881 will be ready to put upon the market. Particular attention is invited to several good articles on the subject of marketing in the most desirable and profitable manner, which have lately appeared in the *Weekly BEE JOURNAL*. The *Grange Bulletin* remarks that "for small retail packages, tin pails with close-fitting covers are the best. Purchased by the gross or in quantities of 1,000 or more, the price is so inconsiderable that no consumer will object to paying what they cost in addition to the price of the honey, for they are so 'handy to have in the house' that not one housewife in a hundred would wish to return the pail."

Sometimes a noble failure serves the world as faithfully as a distinguished success.—*Dryden*.

## SELECTIONS FROM OUR LETTER BOX

**The Clovers.**—Yes, Syrian is the word, if only for the sake of euphony. "Holy" is too Oriental, and seems half sacrilegious when used in this way. Bees are doing well here, since we had a shower or two. White clover is very abundant, but in front of my window is a meadow of mixed white and red clovers and there are 5 or 6 Italians on the red clover to-day to one bee of any kind upon the others. Lately I visited Mr. Jesse Ridings, of Whitehall, Ill., who had a field of mixed red, white, and alsike clovers, and there were 20 Italians on the alsike to one on any other bloom. He had also a patch of very thrifty melilot, sown last year, but it was not yet in bloom. Have killed all my black queens but one; have bred Italians, and have them laying instead of the blacks. WM. CAMM. Murrayville, Ill., June 6, 1881.

**The Prospects in California.**—Some time ago I wrote a letter to the *BEE JOURNAL*, stating how good the prospect was for surplus honey. Now the thing is changed. A month ago some of my neighbors told me that the bees were killing their drones. Having but few drones, I had no surplus and my bees were leaving them alone, but now I observe occasionally a drone being lugged off. Many of my bees have stopped breeding, and commenced again within a few days. Very late frosts have killed what bloom we had, and now the bearbush or hawberry, is commencing to bloom and honey is coming in, and queens laying again. I have obtained but little surplus and very little comb honey, equalizing most of my colonies. I increased from 68 to 81 strong colonies, but unless more honey is gathered, I shall have to feed back and rear queens in the fall. Queen-rearing, for the present, is useless, unless one wants them to starve and get the bees to robbing. All my colonies are full of bees, but they have very little honey, and only a little brood. One colony had a good proportion of brood in 6 out of 10 combs, and good sage honey to live on through the drouth, which will be on us after the bearbush is through blooming. I notice a great many dead bees about the bush while in bloom; it appears that the bees gorge themselves and are too weak to take their load home; the bush is swarming with bees during the bloom. What colonies survive the drouth, soon fill up with fall honey, from the golden rod and decaying fruit. Bees do not destroy fruit, but save the juices after birds and yellow-jackets have punctured it. I have watched and seen them leave the santa rosa bloom because they could not bite through the base of the flower, where the honey is. The tube being long only humming birds can sip the honey. By pulling the tube and sucking it one can taste the honey. The locust in this vicinity was a failure, giving no bloom to speak of.

Napa, Cal.

J. D. ENAS.

**Encouraging.**—Bees are doing finely, swarming, filling sections and rearing brood. I got through the winter with 13, bought 10 in Alabama, and had 6 large swarms. The fields, road sides and commons are white with bloom. I have 3 acres of alsike clover near my bees; they worked on the alsike about a week before they did on the white clover. Basswood will have a very heavy bloom; the buds are just formed.

J. H. THORNBURG.

Manchester, Ind., June 10, 1881.

**Testing Cyprian Queens.**—Will some breeder of Cyprian queens inform me how I can tell whether my Cyprian queens have mated with Cyprian or Italian drones, where all are reared in one yard? I have 43 colonies of fine Italians; 32 are storing surplus now. The *Weekly BEE JOURNAL* is indispensable to any live bee-keeper.

S. E. O'NEEL.

Dupont, Ind., June 14, 1881.



**Bee Stings.**—I am an attentive reader of the Weekly BEE JOURNAL, and as long as I have a colony of bees, I should be sorry to have to do without it. I am very much interested about bees, but am rather afraid that nature did not intend me for a bee-keeper, for it gives me so much inconvenience when I am stung. There seems less difficulty in protecting the face by means of a veil than in knowing the best way to protect the hands. I fancied myself safe till yesterday, by wearing a rather thick pair of brown kid gloves, but in handling the frames without having previously smoked the bees, I was stung on one of my fingers, from which my whole hand is still quite swollen and painful. For some time the inflammation extended all the way up my arm. Perhaps you will say if I am so susceptible to the poison of the sting I had better keep clear of bees. Prof. Cook says that people soon become inoculated and feel every sting less, but I shrink from the idea of that process. Would you advise me to get a pair of rubber gloves? I have seen it recommended to wear white cotton gloves, but should think they would be no better protection than kid. I only have one colony; lost 2 last winter; packed one in chaff and the other in shavings.

H. F. BULLER.

Campbellford, Ont., June 11, 1881.

[Rubber gloves are better than kid, because it is more difficult for a bee sting to go through them. It would be more pleasant, as well as safer, to smoke the bees if they are so cross, and thus prevent them from attacking you.—ED.]

**The Weather, Cause of Losses, etc.**—Are the fates combined against us poor fellows, that are trying to cultivate the sweets of nature? It appears as if something that is beyond the power of mortals, is trying the endurance of us poor bee-keepers; the elements, at least, are not propitious for the replenishing of our monuments of departed sweetness—rain, rain, thunder and lightning and rain, with a little sun occasionally, just for an aggravation, that we may know that there is one. The white clover is just in its splendor, large and full, and plenteous, but the rains descend and the floods come, and our bees stay, like sensible beings, in out of the wet, getting ready for a grand rush by-and-by—a sort of spitting on the hands, like, waiting for the word go—when the weather makers say "now," and I wish they would soon, for my hives are running over with bees, gathering a little honey, just enough to keep soul and body together, a sort of a hand-to-mouth living; but I suppose it is the best they can do, considering how Prof. Vennor and the rest of our weather-makers are running things, and, as Novice says, I don't understand it. By-the-way, what new idea is he going to advance this year? Almost everyone will have some new idea to advance as to the fearful mortality among the bees, but how many will profit by their past experience? and among us all, who has the right way to winter bees? and unless we judge by their success can we take their way as being the right one? I never wintered bees any better than last winter. From Nov. 15 until April 17 they had no flight, and yet I only lost 4 from 51, that I put up right, and 3 of those starved, through my own neglect. I had 6 that I took extra care to have in a correct condition, according to authorities, young bees, extra good queens, good sealed honey, and a plenty of it, 3 packed in 6 inches of chaff on the 6 sides, and 3 with the same amount of dry pine sawdust on 5 sides, and a 6 inch thick blanket of chaff on top, and they all went over the bridge together, for chaff or dust did not save them, not a one. This spring I found the combs moldy and bees mostly on the bottom of the hives, with honey in store—so I think I have exploded to my satisfaction, at least, that out-door chaff-packing is chaff, as far as the successful wintering of bees is concerned, and is not the correct way to do. Our friend, Lowmaster, of Belle Vernon, Ohio, appears jubilant about having a swarm of bees the 29th of May, and gives his opinion

that it cannot be beaten North of the 40th parallel. You know it is not always safe to laugh as hard as you can at the first story, for something may come funnier. Well, I had a strong new swarm on the 31st, but that does not beat his in time, although I am almost  $1\frac{1}{2}^{\circ}$  further north; but I had one the 25th, another the 27th, and have had several since, although his was a Sunday swarm (they are considered a little extra, you know, for then you have an excuse to stay home from church). Mine were 2 and 4 days earlier. Nearly all the bees have died the past winter in this county, within a radius of 12 miles, that I know of. Of 460 colonies, now less than 70 are alive, aside from my own, of which I lost 4 out of a lot of 51.

F. W. CHAPMAN.

Morrison, Ill., June 11, 1881.

**Wintering on Cider.**—The fall of 1880 came, but no honey crop; there were plenty of cider-mills, fruit-driers, vineyards, etc., all around here, and the bees stored a goodly amount of "choice wines and liquors," and were well fixed for a winter's debauch. Winter caught me with 5 colonies (1 black and 4 Italians). The blacks and one colony of Italians had about 7 or 8 pounds of honey, including their non-temperance drinks, each. I packed them all in chaff and made my second trial at wintering bees. About the middle of January, as a consequence of their intemperate habits, they all had the dysentery. By the middle of February the blacks had reaped the reward of inebriety, and "gone down to a drunkard's grave." They left behind them only empty combs and bloated carcasses. Toward the last of March the bees had their first chance for a flight since November, and 4 colonies only took advantage of the "let up" in the weather. The colony that went into winter quarters with 7 lbs., now had 3 lbs. I do not think that many cellars will cause the bees to winter on less than 4 lbs. The mortality of bees in this county has been very great, and I find myself (notwithstanding I left my bees packed in chaff on the summer stands) one of the lightest losers, both among cellar and chaff advocates. I would say to Mr. Townly, that he may, if it will benefit anyone, inform his correspondent that I apply the chaff above, below and on all sides, whole and unadulterated and that it will not cause dysentery, if the apiarist will only keep it dry, and if any of his friends will drop into my modest apiary, I will show them a hive that will, every time, winter the bees out-of-doors as well as they will winter in a cellar.

F. L. DRESSER.

Hillsdale, Mich., June 13, 1881.

**Swarming.**—I have wintered 7 colonies in chaff hives (Langstroth), without loss, while so many have lost all their bees. I purchased 15 colonies of blacks in March, transferred them early in April to Langstroth hives, making my number 22, all in good condition for business. As I preferred natural swarming to dividing, I at once clipped one wing of all the queens; I purchased a lot of Dunham foundation, gave one frame of it to each colony, every 5 days, until every hive was full. I arranged all my hives in a hexagonal figure, consisting of 44 hives. My first swarm issued May 18; I was ready with cage in hand; the queen was about the last to leave the hive. I picked her from off the sawdust, put her in the cage, put a hive filled with foundation in place of the old one, placed the queen in front of the new hive; soon the bees missed their mother, and came back to look for her. The hive was black with bees, and I let the queen out of the cage and all was over. I have now 43 colonies, all having swarmed but one from which I removed the queen, in order to get cells, in order to Italianize as I go along; and this is the way I did it: Allowing 16 days for a queen to hatch, my queens hatched June 1, at which time my bees had swarmed; as fast as they swarmed I cut out all the black cells and introduced an Italian cell; by June 2 all my Italians were hatched. I purchased a fine tested Italian queen, and all the queens were from her, and they are beauties. The 7 I wintered were Italians; of course I depend on them for

the drones. With my honey knife as sharp as I could get I went to my black colonies every 6 days and clipped the heads of all the drones that were capped. By repeating the process above stated I have not a black drone in my apiary, and none very close to it, and my young queens stand a good chance for a pure impregnation. In all the swarming I lost only one queen, which I failed to catch on coming out, but she flew to the hive, just in front of one that had swarmed the day previous; I gave the new swarm a cell instead of the old queen. There is one great trouble with swarming as above mentioned: the bees on returning would try and get in any hive they could, until I was compelled to close all the entrances when a swarm issued. Has any one had similar troubles with swarms?

Poseyville, Ind. J. F. KIGHT.

**Winter and Spring.**—The long, cold winter has passed away, and with it most of our bees. I commenced the winter with 23 colonies; 1 intended to pack them in straw and chaff, but was unavoidably prevented. I left 15 of the heaviest out without protection, except a bank on the north that broke the force of the wind, and during part of the time they were under the snow; 8 of the lightest I buried in a pit out of the reach of frost; of these 5 came out with live bees in them, but 2 were very weak, so that I united them with one of the others, one I have lost since from queenlessness; out of the 8 I have but 2 good colonies left. Of the other 15 I have 5 good colonies left; one cast a good swarm on the 5th, which makes 8 colonies, at present, in good condition. The loss of bees was heavy here, the past winter, but the spring has been very favorable for what came through to build up, and they are generally in good condition now. Bees are getting some honey from white clover, but we have never got any surplus from that source yet. The prospect for basswood is good, of which we have an abundance. As to the cause of our disasters in wintering I cannot indorse Mr. Heddon's theory. Mr. Doolittle expresses my views, exactly. I like the Weekly BEE JOURNAL, and intend to renew, so as not to miss a number.

L. G. PURVIS.

Hartford, Iowa, June 13, 1881.

**White Clover Short.**—Bees are building up very slowly. White clover is not more than half a crop, so far, owing to severe spring drouth. We have had fine rains during the past few days, and I hope for a good crop of honey. I am much pleased with the JOURNAL; wish you and it success.

G. W. JENKINS.

New Liberty, Ky., June 9, 1881.

**Spring Dwindling.**—My loss of 9 out of 18 colonies occurred during the first part of April—the worst time for bees I ever saw—they are now in good condition. My best Italian colony supplied 2 full frames of capped brood to help build up those weak. I have had a large natural swarm, and now have 18 two-lb. boxes nearly filled with honey. White clover is abundant. There is at least 1,000 acres to every colony of bees near here.

PHILIP P. NELSON.

Manteno, Ill., June 10, 1881.

**Grafting Wax.**—Can any of the readers of the BEE JOURNAL give a receipt for grafting wax, that the bees will not gnaw? My orchard surrounds my apiary, and the bees trouble it very much in this way. I would like a receipt that is not composed in part of beeswax, if any such is known.

Glensdale, N. Y. N. F. CASE.

**Good Prospect for Honey.**—Basswood is full of buds, and there is plenty of honey in all the flowers. My first swarm came out on June 6; I have 30 colonies, and 2 young queens laying. I bought 10 colonies for \$50. Some of them had brood in every comb. The cause of bees dying last winter was dampness, cold, long confinement, breeding too soon in winter quarters, and being put out too early.

FAYETTE LEE.

Cokato, Minn., June 11, 1881.

**Do Bees ever get to be a Nuisance?**—In your No. 23 Mr. Heddon asks for information relative to the above subject. Our Iowa "code" defines a "nuisance" to be "whatever is injurious to health, or indecent or offensive to the senses, or an obstruction to the free use of property so as essentially to interfere with the comfortable enjoyment of life and property," and when found to be a nuisance under the above definition may be enjoined or abated. Under the last clause of the section above quoted it would seem that bees might, at times, be included. If my neighbor owns and operates a sugar refinery, and I keep adjacent thereto a large apiary, to his annoyance, discomfort or disadvantage, I do not see why the bees could not be declared a nuisance just as a stinking hog pen, kept within easy range of his olfactory nerves, could. I do not know of a case where the question of damages by bees has arisen in our courts, but I do not see why they should not be controlled to the extent of not interfering with our neighbors' rights, as well as any other class of property. While we are supposed to have a right to life, liberty, and the pursuit of happiness in our own chosen vocation, and the enjoyment of property, we are not to deprive another of the same right. Our individual rights ought to be subservient to the public good, and if we cannot pursue an occupation without injury to our fellow citizens, we ought to choose some other business. If beekeepers would also keep the Golden Rule in their hearts, and when so unfortunately located as to cause annoyance or discomfort to their neighbors, whose occupations attract the bees, if they would endeavor to do right, very little complaint would be made.

EUGENE SECOR.

Forest City, Iowa, May 13, 1881.

**Died of Dysentery.**—I lost about 80 per cent. of my bees. I had them packed on their summer stands; they were confined too long and died with dysentery. They are doing well now; beginning to swarm and working in sections. I wish the BEE JOURNAL success.

HIRAM J. WARD.

Farmington, Kan., May 8, 1881.

## CLUBBING LIST.

We supply the Weekly American Bee Journal and any of the following periodicals for club, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publisher's Price.	Club.
The Weekly Bee Journal (T. G. Newman)	\$.20	
and Gleanings in Bee-Culture (A. I. Root)	3 00.	2 75
Bee-Keepers' Magazine (A. J. King)	3 00.	2 60
Bee-Culture (T. G. Newman)	2 75.	2 50
The 4 above-named papers	4 75.	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50.	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50.	2 35
The 6 above-named papers	6 75.	5 00
Kansas Bee-Keeper	2 25.	2 50
Prof. Cook's Manual (bound in cloth)	3 25.	3 00
Bee-Culture (T. G. Newman)	41 00 less.	2 40.
For Semi-monthly Bee Journal, \$1.50 less.		
For Monthly Bee Journal, \$1.50 less.		

## Local Convention Directory.

1881. **Time and Place of Meeting.**  
Sept. — National, at Lexington, Ky.  
— Kentucky State, at Louisville, Ky.  
Oct. 11, 12 — Northern Michigan, at Maple Rapids.  
12 — Ky. State, in Exposition B'dg., Louisville, Ky.  
W. Williamson, Sec., Lexington, Ky.  
27 — Western Mich., at Berlin, Mich.  
Wm. M. S. Dodge, Coopersville, Sec.  
In order to have the Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

## Honey and Beeswax Market.

BUYERS' QUOTATIONS.

## CHICAGO.

**HONEY.**—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15¢/lb. for strictly choice white comb in 1 and 2 lb. boxes; at 10¢/lb. for common dark-colored and broken lots. Extracted, 7¢/lb.

BEESWAX.—Choice yellow, 24¢/lb.; dark, 15¢/lb.

## NEW YORK.

**HONEY.**—Best white comb honey, small neat packages, 14¢/lb.; dark 11¢/lb.; large boxes 5¢ less. White extracted, 9¢/lb.; dark, 7¢/lb.

BEESWAX.—Prime quality, 20¢/lb.

## CINCINNATI.

**HONEY.**—The market for extracted clover honey is good, at 8¢/lb. Comb honey is of slow sale at 16¢ for the best.

BEESWAX.—18¢/lb.

C. F. MUTH.

## SAN FRANCISCO.

**HONEY.**—A few cases of new, both extracted and comb, have arrived—not enough to attract anyone but a retail buyer. Large offerings would not be apt to solicit much attention from customers just now, as they are busily engaged on fruits. Stocks of old extracted are firmly held.

We quote white comb, 12¢/lb.; dark to good, 9¢/lb. Extracted, choice to extra white, 6¢/lb.; dark and candied, 5¢/lb. BEESWAX.—21¢/lb.

STEARNS &amp; SMITH, 423 Front Street, San Francisco, Cal., June 9, 1881.



## SPECIAL NOTICES.

Single copies of the JOURNAL are sent postage paid for 5 cents each.

Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

When changing a postoffice address, mention the old address as well as the new one.

The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for \$1.50.

We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or \$8.00 per hundred.

Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

Many Lose Their Beauty from the hair falling or fading. Parker's Hair Balsam supplies necessary nourishment, prevents falling and grayness and is an elegant dressing. 22w4

Constitutions and By-Laws for local Associations \$2 per 100. The name of the Association printed in the blanks for 50 cents extra.

We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

Sample copies of the Weekly BEE JOURNAL will be sent free to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, always send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

**PREMIUMS.**—For a club of 2, weekly we will give a copy of "Bee-Culture"; for a club of 5, weekly, we will give a copy of "Cook's Manual" bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year free. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

An Old Lady writes us: "I am 65 years old and was feeble and nervous all the time, when I bought a bottle of Parker's Ginger Tonic. I have used a little more than one bottle and feel as at 30, and am sure that hundreds need just such medicine." See advertisement. 22w4

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Wishing to introduce our books and show their size, style of binding, etc., we have decided to make the **GRANDEST AND MOST LIBERAL OFFER OF THE CENTURY**, for a short time.

We will send the ten books described below, by mail, post-paid to any address, on receipt of \$1. and for twenty-five cents extra, sent at the same time, will include one year's subscription to **FARM AND FIRESIDE**, the leading agricultural and home journal of the world.

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Illustrated with numerous wood engravings, descriptive of those many strange and singular stories which the legend says the Sultan of Persia related to the Sultan's night after night, in order to prolong her life, and thus finally won his affections and delivered the many virgins, who but for her would have been sacrificed to his unjust resentment.

## SAVED AT LAST FROM AMONG THE MORMONS.

Every man and woman in the land should read this story which is founded upon facts, and gives an insight into the low estate of woman under the Mormon rule.

## BREAD AND CHEESE AND KISSES.

By B. L. Farjeon. A very popular Christmas story after the style of Dickens; abounds in excellent and novel features; is chiefly remarkable for its admirable picture of country life, giving the history of a very happy and contented young couple who thought no lot in life too low for the pure enjoyment of Bread and Cheese and Kisses. Complete in one volume, with illustrations.

The usual price of these books bound in cloth is \$1.00 to \$3.00 each. We propose to bind them in heavy paper or thin card board, and send them by mail and prepay the postage, for 25 cents each. They contain a wide range and striking diversity of the most brilliant and pleasing productions of the most noted and popular authors, and include books of travels, adventures, fiction and humor, so that all tastes will be suited. We propose to call it the **FARM AND FIRESIDE LIBRARY**, and any one obtaining these ten books will possess a library of ten of the most popular books ever published. We have no room to give a full description of each book, but all will be delighted who obtain these noted books at so low a price.

**THE BOOKS** will be the latest and most complete editions, and will contain many illustrations, one alone requiring thirty-nine pictures to complete it.

**THE PAGES** are about 5 1/2 by 8 inches—the most convenient size for reading and preservation.

**THE TYPE** is Minion, easy on the eyes. **THE PAPER** is heavy and of a beautiful white color.

**THE FIRST BOOK**, Robinson Crusoe, was ready about April 1st. One of the others will follow every two weeks and be mailed to subscribers as soon as published.

**RELIABLE.**—Messrs. Rowell & Co., publishers of the American Newspaper Directory, writing to the publishers of FARM AND FIRESIDE, say, "they are accredited by the Mercantile Agencies with a capital of a Million dollars, and are too well known and too much respected to make it worth while to make any statements which are not true." Therefore all are sure to get the above books if careful to direct letters correctly.

**MONEY SHOULD BE SENT** by Post Office Money Order or Registered Letter, addressed to **Publishers of FARM AND FIRESIDE, Springfield, Ohio.**

## EMERSON BINDERS.



Binders for the Weekly Bee Journal, of 1881, cloth and paper, postpaid, 85 cents.

We can furnish Emerson's Binders, gilt lettered on the back, for AMERICAN BEE JOURNAL for 1880, at the following prices, postage paid:

Cloth and paper, each.....50c.  
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We can also furnish the Binder for any Paper or Magazine desired.

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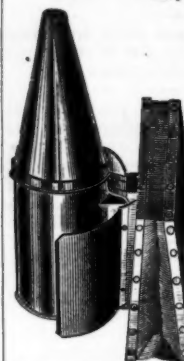
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